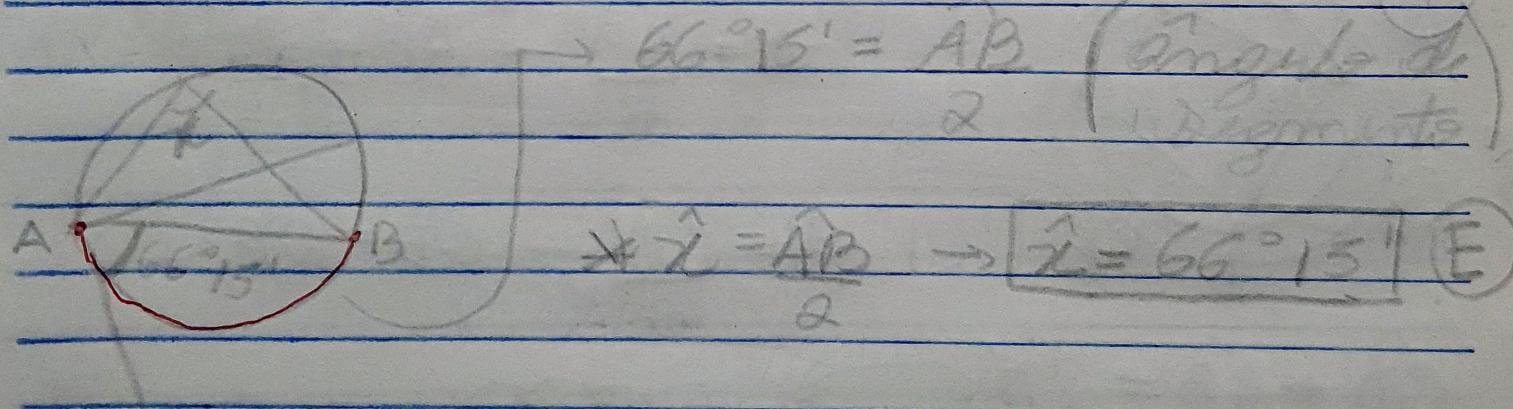


→ Tarefa Básica - Arco e ângulos no círculo

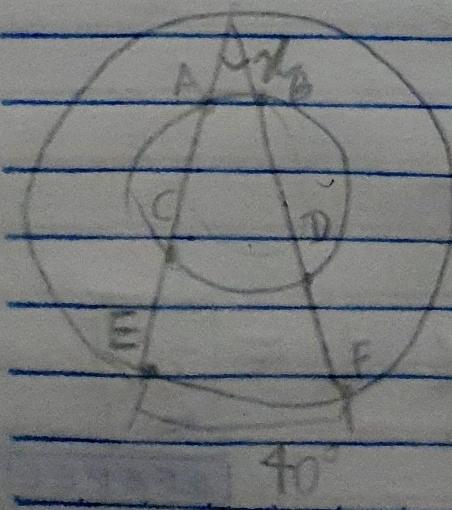
Nome: Bárbara U-Graße, CT11350.

① $\hat{x} = \frac{\widehat{AB}}{2}$ (ângulo inscrito)



$$\hat{x} = \frac{\widehat{AB}}{2} \rightarrow \hat{x} = 66^{\circ}15' \quad (\text{ângulo de } 180^{\circ})$$

② $\widehat{AB} = \widehat{EF} = 40^{\circ}$, $\widehat{CD} = ?$



$$\hat{x} = \frac{\widehat{EF}}{2} \quad (\text{ângulo inscrito})$$

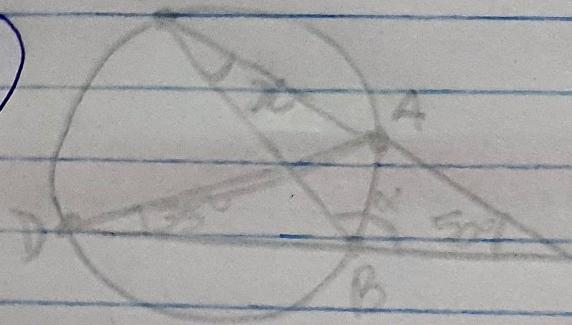
$$\hat{x} = \frac{40}{2} = 20^{\circ} //$$

$$\hat{x} = \frac{(\widehat{CD} - \widehat{AB})}{2} \quad (\text{ângulo central})$$

AFAPEL

$$\frac{20 - \hat{CD}}{2} = 40 \rightarrow \hat{CD} - 40 = 40 \quad \text{but } \hat{CD} = 40 + 40 = 80^\circ \text{ (E)}$$

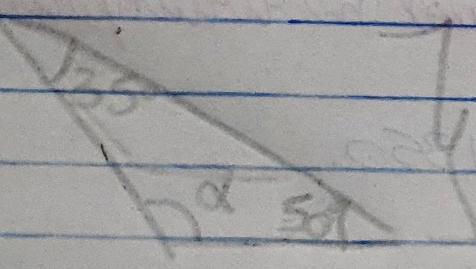
(3)



$$\hat{BA} = \alpha$$

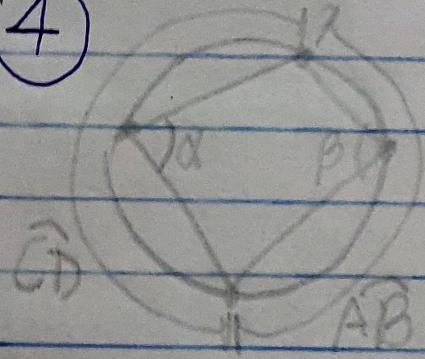
$$35^\circ = \hat{AB}$$

$$x = \hat{AB} = 35^\circ$$



$$\alpha + 35 + 50 = 180^\circ \quad \text{so } \alpha = 180 - 85 = 95^\circ \text{ (A)}$$

(4)



$$\alpha = \frac{\hat{AB}}{2} \rightarrow \hat{AB} = 2\alpha$$

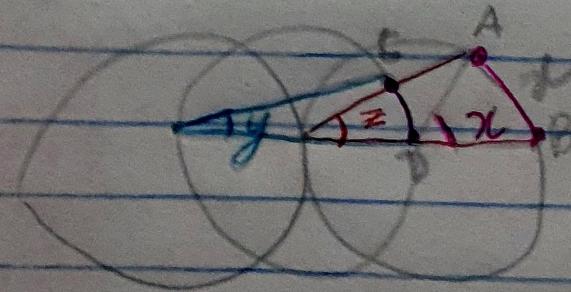
$$\beta = \frac{\hat{CD}}{2} \rightarrow \hat{CD} = 2\beta$$

$$\hat{CD} + \hat{AB} = 2\pi$$

$$2\beta + 2\alpha = 2\pi \quad (\because) \quad \{ 2\pi = 360^\circ \}$$

$$\beta + \alpha = 180^\circ \text{ (C)}$$

(5)



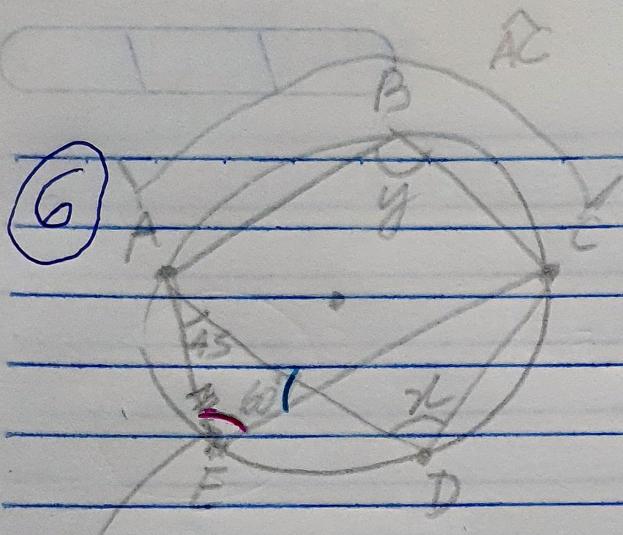
$$* x = \hat{AB}$$

$$* z = \frac{x}{2}$$

$$* z = \hat{CD}$$

$$\hat{CD} = 2$$

$$* y = \frac{\hat{CD}}{2} \rightarrow y = \frac{x}{2} \cdot 1 = \frac{x}{2}$$



⑥

$$45^\circ = \frac{\hat{ED}}{2} \rightarrow \hat{ED} = 90^\circ$$

$$z = \frac{\hat{AC}}{2} \rightarrow 45 = \frac{\hat{AC}}{2}$$

$$\begin{aligned} *z + 45^\circ + 60^\circ &= 180^\circ \\ z &= 180 - 105 \\ z &= 75^\circ \end{aligned} \quad \left\{ x = \frac{\hat{AC}}{2} = 75^\circ \right.$$

$$*m = \frac{\hat{AE} + \hat{CD}}{2} \rightarrow \hat{AE} + \hat{CD} = 120^\circ$$

$$y = \frac{\hat{AB} + \hat{CD} + \hat{ED}}{2} = \frac{120 + 90}{2} = \frac{210}{2} = 105^\circ$$